AMENDMENTS

IN THE CLAIMS:

No claim amendments are made at this time. A listing of the claims is provided below for the Examiner's easy reference.

1. (Previously presented) A method for fabricating a trench isolation structure, comprising:

forming a mask on a substrate;

forming at least one trench in the substrate by using the mask;

in the presence of the mask, selectively depositing a first insulation material only in the trench and not on the mask to fill a lower part of the at least one trench in the substrate with the insulation material reducing the aspect ratio of the at least one trench; and

applying a second insulation material over an entire surface of the structure to fill the at least one trench in the substrate at least up to a top side of the mask.

2. (Previously presented) The method for fabricating a trench isolation structure according to Claim 1, wherein the substrate is made from silicon, the mask is made from silicon nitride and the first and second insulation materials are formed from silicon oxide.

3. (Previously presented) The method for fabricating a trench isolation structure according to Claim 1, wherein after the selective deposition a conditioning process is carried out to compact the first insulation material.

4. (Previously presented) The method for fabricating a trench isolation structure according to Claim 1, wherein the second insulation material is applied by an HDP process.

5. (Previously presented) The method for fabricating a trench isolation structure according to claim 1, wherein the second insulation material is planarized by chemical mechanical polishing on the mask.

6. (Previously presented) A method for fabricating a trench isolation structure, comprising:

forming a mask on a substrate;

forming at least one trench in the substrate by using the mask;

in the presence of the mask, selectively forming a first insulation material in a lower part of the trench to fill the at least one trench in the substrate in the lower part and not in the upper part with the insulation material for reducing the aspect ratio of the trench; and

applying a second insulation material over an entire surface of the structure to fill the at least one trench in the substrate at least up to a top side of the mask.